



SEQUENCE LISTING

<110> Bienkowski, Michael J.
Heinrikson, Robert L.

<120> Heparanase II, A Novel Human Heparanase Paralog

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<170> PatentIn Ver. 2.1

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<212> DNA

<213> Homo sapiens

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35 40 45
Val Asp Arg Ala Ala Gly Leu Lys Glu Lys Thr Leu Ile Leu Leu Asp
50 55 60
Val Ser Thr Lys Asn Pro Val Arg Thr Val Asn Glu Asn Phe Leu Ser
65 70 75 80
Leu Gln Leu Asp Pro Ser Ile Ile His Asp Gly Trp Leu Asp Phe Leu
85 90 95
Ser Ser Lys Arg Leu Val Thr Leu Ala Arg Gly Leu Ser Pro Ala Phe
100 105 110
Leu Arg Phe Gly Gly Lys Arg Thr Asp Phe Leu Gln Phe Gln Asn Leu
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Arg Asn Pro Ala Lys Ser Arg Gly Gly Pro Gly Pro Asp Tyr Tyr Leu
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Lys Asn Tyr Glu Asp Asp Ile Val Arg Ser Asp Val Ala Leu Asp Lys
145 150 155 160
Gln Lys Gly Cys Lys Ile Ala Gln His Pro Asp Val Met Leu Glu Leu
165 170 175
Gln Arg Glu Lys Ala Ala Gln Met His Leu Val Leu Leu Lys Glu Gln
180 185 190
Phe Ser Asn Thr Tyr Ser Asn Leu Ile Leu Thr Glu Pro Asn Asn Tyr
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Arg Thr Met His Gly Arg Ala Val Asn Gly Ser Gln Leu Gly Lys Asp
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Tyr Ile Gln Leu Lys Ser Leu Leu Gln Pro Ile Arg Ile Tyr Ser Arg
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Ala Ser Leu Tyr Gly Pro Asn Ile Gly Arg Pro Arg Lys Asn Val Ile
245 250 255
Ala Leu Leu Asp Gly Phe Met Lys Val Ala Gly Ser Thr Val Asp Ala
260 265 270
Val Thr Trp Gln His Cys Tyr Ile Asp Gly Arg Val Val Lys Val Met
275 280 285
Asp Phe Leu Lys Thr Arg Leu Leu Asp Thr Leu Ser Asp Gln Ile Arg
290 295 300
Lys Ile Gln Lys Val Val Asn Thr Tyr Thr Pro Gly Lys Lys Ile Trp
305 310 315 320
Leu Glu Gly Val Val Thr Thr Ser Ala Gly Gly Thr Asn Asn Leu Ser
325 330 335
Asp Ser Tyr Ala Ala Gly Phe Leu Trp Leu Asn Thr Leu Gly Met Leu
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Ala Asn Gln Gly Ile Asp Val Val Ile Arg His Ser Phe Phe Asp His

355 360 365
 Gly Tyr Asn His Leu Val Asp Gln Asn Phe Asn Pro Leu Pro Asp Tyr
 370 375 380
 Trp Leu Ser Leu Leu Tyr Lys Arg Leu Ile Gly Pro Lys Val Leu Ala
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 Val His Val Ala Gly Leu Gln Arg Lys Pro Arg Pro Gly Arg Val Ile
 405 410 415
 Arg Asp Lys Leu Arg Ile Tyr Ala His Cys Thr Asn His His Asn His
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 Asn Tyr Val Arg Gly Ser Ile Thr Leu Phe Ile Ile Asn Leu His Arg
 435 440 445
 Ser Arg Lys Lys Ile Lys Leu Ala Gly Thr Leu Arg Asp Lys Leu Val
 450 455 460
 His Gln Tyr Leu Leu Gln Pro Tyr Gly Gln Glu Gly Leu Lys Ser Lys
 465 470 475 480
 Ser Val Gln Leu Asn Gly Gln Pro Leu Val Met Val Asp Asp Gly Thr
 485 490 495
 Leu Pro Glu Leu Lys Pro Arg Pro Leu Arg Ala Gly Arg Thr Leu Val
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 <213> Artificial Sequence

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35 40 45

Leu His Leu Val Ser Pro Ser Phe Leu Ser Val Thr Ile Asp Ala Asn
50 55 60

Leu Ala Thr Asp Pro Arg Phe Leu Ile Leu Leu Gly Ser Pro Lys Leu
65 70 75 80

Arg Thr Leu Ala Arg Gly Leu Ser Pro Ala Tyr Leu Arg Phe Gly Gly
85 90 95

Thr Lys Thr Asp Phe Leu Ile Phe Asp Pro Lys Lys Glu Ser Thr Phe
100 105 110

Glu Glu Arg Ser Tyr Trp Gln Ser Gln Val Asn Gln Asp Ile Cys Lys
115 120 125

Tyr Gly Ser Ile Pro Pro Asp Val Glu Glu Lys Leu Arg Leu Glu Trp
130 135 140

Pro Tyr Gln Glu Gln Leu Leu Leu Arg Glu His Tyr Gln Lys Lys Phe
145 150 155 160

Lys Asn Ser Thr Tyr Ser Arg Ser Ser Val Asp Val Leu Tyr Thr Phe
165 170 175

Ala Asn Cys Ser Gly Leu Asp Leu Ile Phe Gly Leu Asn Ala Leu Leu
180 185 190

Arg Thr Ala Asp Leu Gln Trp Asn Ser Ser Asn Ala Gln Leu Leu Leu
195 200 205

Asp Tyr Cys Ser Ser Lys Gly Tyr Asn Ile Ser Trp Glu Leu Gly Asn
210 215 220

Glu Pro Asn Ser Phe Leu Lys Lys Ala Asp Ile Phe Ile Asn Gly Ser

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500

505

510

Glu Lys Pro Leu Arg Pro Gly Ser Ser Leu Gly Leu Pro Ala Phe Ser
515 520 , 525

Tyr Ser Phe Phe Val Ile Arg Asn Ala Lys Val Ala Ala Cys Ile
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